DNA Binding   Dimerization

FIG. 1A

```
        1                                                        50
DAED  ---------- ---MESLFCE SSGDSSLEKE FLGAPVGPSV STPNSQHSSP
HEL   ---MHCTLTM ETDAIDGYIT CDNELSPEGE HANMAIDLTS STPNGQQASP
AIO   -MEDIQPTVE LKSTEEQPLP TESPDALNDY SLPKPHEIEN VDSREAPANE
IK    MDVDEGQDMS QVSGKESPPV SDTPDE.GDE PMPVPEDLST TSGAQQNSKS
        51                                                       100
DAED  SRSLSANSIK VEMYSDEESS RL.LGPDERL LDKDDSVIVE DSLSEPLGYC
HEL   SHMTSTNSVK LEMQSDEECD RQPLSREDEI RGHDEGSSLE EALIESSEVA
AIO   DEDAGEDSMK VKDEYSDRDE N..IMKPEPM GDAEESEM.P YSYAREYSDY
IK    DRGMA.SNVK VETQSDEENG R..ACEMNGE ECAEDLRMLD ASGEKMNGSH
        101                                                      150
DAED  DGSGPEP.HS PGGIRLPNGK LKCDVCGMVC IGPNVLMVHK RSHTGERPFH
HEL   DNRKVQDLQG ERGIRLPNGK LKCDVCGMVC IGPNVLMVHK RSHTGERPFH
AIO   ESIKLERHVP YDNSRPTSGK MNCDVCGLSC ISFNVLMVHK RSHTGERPFQ
IK    RDQGSSALSG VGGIRLPNGK LKCDICGIVC IGPNVLMVHK RSHTGERPFQ
        151                                                      200
DAED  CNQCGASFTQ KGNLLRHIKL HSGEKPFKCP FCNYACRRRD ALTGHLRTHS
HEL   CNQCGRSFTQ KGNLLRHIKL HSGEKPFKCP FCSYACRRRD ALTGHLRTHS
AIO   CNQCGASFTQ KGNLLRHIKL HTGEKPFKCH LCNYACQRRD ALTGHLRTHS
IK    CNQCGASFTQ KGNLLRHIKL HSGEKPFKCH LCNYACRRRD ALTGHLRTHS
        201                                                      250
DAED  VSSPTVGKPY KCNYCGRSYK QQSTLEEHKE RCHNYLQSLS TDA..QALTG
HEL   .....VGKPH KCNYCGRSYK QRTSLEEHKE RCHNYLQNVS MEAAGQVMSH
AIO   .....VEKPY KCEFCGRSYK QRSSLEEHKE RCRAFLQNPD LGDAASV...
IK    .....VGKPH KCGYCGRSYK QRSSLEEHKE RCHNYLESMG LPGVCPVIKE
```
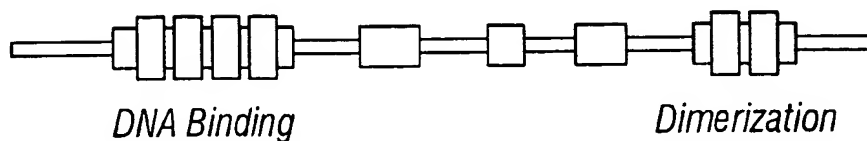
FIG. 1B-1

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```
         251                                                 300
DAED  Q..PGDEIRD LEMVPDSMLH .PSTERPTFI DRLANSLTKR KRSTPQKFVG
HEL   HVPPMEDCKE QEPIMDNNIS LVAFERPAVI EKLTANMGKR KSSTPQKFVG
AIO   EARHIK.... .AEM...... ..GSERALVL DRLASNVAKR KSSMPQKFIG
IK    ETNHNEMAED LCKI...... ..GAERSLVL DRLASNVAKR KSSMPQKFLG
         301                                                 350
DAED  EKQMRFSLSD LPYDVNASGG YEKDVELVAH HGLEPGFGGS LAFVGTEHLR
HEL   EKLMRFSYPD IHFHMNLT.. YEKEAELMQS HMMDQAINNA ITYLGAEALH
AIO   EKRHCFD... ..ANYNPGYM YEKENEMMQT RMMDQAINNA ISYLGAEAFR
IK    DK..CLS... ..DMPYDSAN YEKE.DMMTS HVMDQAINNA INYLGAESLR
         351                                                 400
DAED  PLRLPPTNCI SELTPVISSV YTQMQPIPSR LELPGSREAG EGPEDLGDGG
HEL   PLMQHAPSTI AEVAPVISSA YSQVYH.PNR IERPISRETS DSHENNMDGP
AIO   PLVQTPPAPT SEMVPVISSV YPIALTRAD. ....MP.... MGAPQEMEKK
IK    PLVQTPPG.S SEVVPVISSM YQLHKPPSD. ....GPPRSN HSAQDAVDNL
         401                                                 450
DAED  PLLYRARGSL TDPGASPSNG CQDSTDTESN HEDRIGGVVS LPQGPPPQPP
HEL   ISLIRPKSRP QEREASPSNS CLDSTDSESS HDDR.....Q SYQGNPALNP
AIO   RILLPEKILP SERGLSPNNS AQDSTDTDSN HEDR.QHLYQ QSHVVLPQ..
IK    LLLSKAKSVS SEREASPSNS CQDSTDTESN AEEQRSGLIY LTNHINPH..
         451                                                 500
DAED  PTIVVGRHSP AYAKEDPKPQ EGLLRGTPGP SKEVLRVVGE SGEPVKAFKC
HEL   KR....KQSP AYMKEDVKAL DA.TKAPKGS LKDIYKVFNG EGEQIRAFKC
AIO   .....ARNGM PLLKEVPRSF E.LLKPPPIC LRDSIKVINK EGEVMDVFRC
IK    .....ARNGL .ALKEEQRAY E.VLRAASEN SQDAFRVVST SGEQLKYYKC
         501                                                 550
DAED  EHCRILFLDH VMFTIHMGCH GFRDPFECNI CGYHSQDRYE FSSHIVRGEH
HEL   EHCRVLFLDH VMYTIHMGCH GYRDPLECNI CGYRSQDRYE FSSHIVGGQH
AIO   DHCVLFLDY VMFTIHMGCH GFRDPFECNM CGYRSHDRYE FSSHIARGEH
IK    EHCRVLFLDH VMYTIHMGCH GFRDPFECNM CGYHSQDRYE FSSHITRGEH
         551
DAED  KVGSCRI
HEL   TFH--
AIO   RAMLK--
IK    RYHLS--
```

FIG. 1B-2

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```
      1                                                    50
MDAED ---------- ---------- --MESLFCES SGDSSLEKEF LGAPVGPSVS
XDAED MSGSTFPTVV GHKLESIFYS STVAALDRPK AGDSSLEKDF SDALIGPTVS
      51                                                  100
MDAED TPNSQHSSPS RSLSANSIKV EMYSDEESSR LLGPDERLLD KDDSVIVEDS
XDAED TPNSRHSSPS RSRSANSIKV EMYGDDESGR LLSHEDRLSE KEDEIMGDDS
      101                                                 150
MDAED LSEPLGYCDG SGPEPHSPGG IRLPNGKLKC DVCGMVCIGP NVLMVHKRSH
XDAED LVEPLGYCDG PGQDPHSP.G ILLPNGKLKC DICGMVCIGP NVLMVHKRSH
      151                                                 200
MDAED TGERPFHCNQ CGASFTQKGN LLRHIKLHSG EKPFKCPFCN YACRRRDALT
XDAED TGERPFHCNQ CGAPFTQKGN LLRHIKLHSG EKPFKCPFCN YACRRRDALS
      201                                                 250
MDAED GHLRTHSVSS PTVGKPYKCN YCGRSYKQQS TLEEHKERCH NYLQSLSTDA
XDAED GHLRTHA... ..VGKPYKCN YCGRSYKQQN TLEEHKERCH NYLQSLSNEA
      251                                                 300
MDAED QALTGQPGDE IRDLEMVPDS MLHPSTERPT FIDRLANSLT KRKRSTPQKF
XDAED QHLPAHPG.. ....EWGPQG .......... .....GNCIC TR...
      301                                                 350
MDAED VGEKQMRFSL SDLPYDVNAS GGYEKDVELV AHHGLEPGFG GSLAFVGTEH
XDAED ..EKQMRLSL ADLPYEMNSS ..FEKDVEIV SHHPLDTAYG NSLAFVG...
      351                                                 400
MDAED LPL.RLPPTN CISELTPVIS SVYTQMQPIP SRLELPGSRE AGEGPEDLGD
XDAED .GPMRLPPTN CISEITPVIS SVYTQLQPMQ GRPDMPGNRE AAEGHEDIPD
      401                                                 450
MDAED GGPLLYRARG SLTDPGASPS NGCQDS.TDT ESNHEDRIGG VVSLPQGPPP
XDAED GTQIHYRGR. ..SEHGASPT NGCQDSNTDT ESNHEERGSQ ATS.......
      451                                                 500
MDAED QPPPTIVVGR HSPAYAKEDP KPQEGLL... .RGTPGPSKE VLRVVGESGE
XDAED ........SR QSSAYAKEDQ RPSDGGLLLP SRSMPGTAKE SLRVLGEDGV
      501                                                 550
MDAED PVKAFKCEHC RILFLDHVMF TIHMGCHGFR DPFECNICGY HSQDRYEFSS
XDAED QVKVFKCEHC RVLFLDHVMF TIHMGCHGFR DPFECNICGY HCQDRYEFSS
      551
MDAED HIVRGEHKVG SCRI
XDAED HIVRGEHKV- ----
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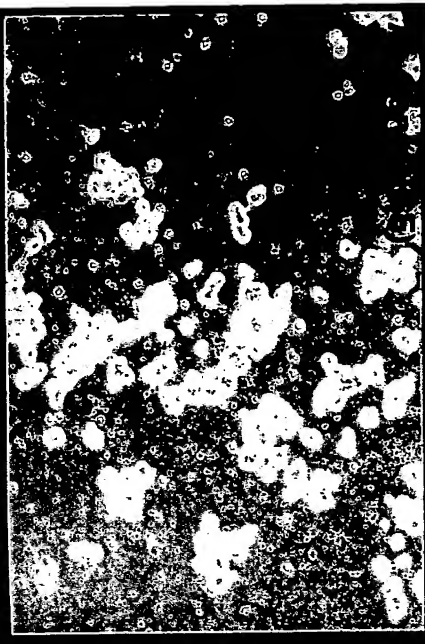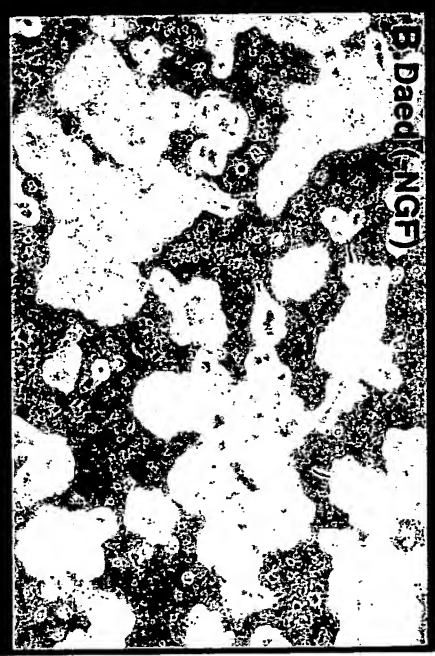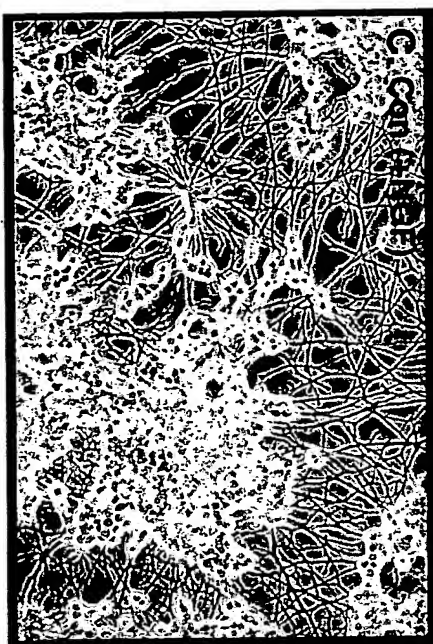
FIG. 1C

FIG. 2A

FIG. 2B

FIG. 2C

FIG. 2D